

which upset his former ideas. Land shells are very scarce in the state of Maine, at least in the parts I have visited. As a rule two or three specimens of the larger species, would be all one would find after a careful search, not so, however, on the small islands. *Pyramidula alternata* occurs in great profusion. *Polygyra albolabris* and *Helix hortensis* are also abundant. *P. alternata* occurs on one island, some distance from any trees, just above high water mark, its only shelter being rocks and small raspberry bushes. In this location some two hundred, including the albino, were found. On another island it occurs in the woods but crawling on the ground, so numerous is it, that one can hardly step without crushing the shells. Furthermore it was found feeding on animal matter, dead crabs and shells left by the crows were covered with hungry individuals.

THE SYSTEMATIC POSITION OF SPHYRADIUM ("PUPA")
EDENTULUM Drap.

BY DR. V. STERKI.

For some time, it has been my opinion that this species (= *Vertigo simplex* Gld.) has not its proper place under Pupa. The shell, though Pupa-like in its general aspect, shows two marked differences from all groups of that genus as well as all Pupidæ. In the first place, its aperture is radial, while in the Pupidæ it is lateral, or tangential, from the columellar wall being prolonged to the periphery of the penultimate whorl, or even beyond it. In the second place, the peristome in Pupidæ is more or less everted, generally with a more or less distinct lip, or at least the margin is "finished up," in mature specimens, while in *edentulum* the peristome is straight and simple, and the margin always thin and sharp, as it is in *Patula*, etc., and in the *Zonitidæ*.

This view is now confirmed by the examination of the radula. The teeth are small, comparatively, and the cusps of all are very short and small. There are r+21 (20) in a transverse row, and 116-127 such rows were counted. The centrals are tricuspid, the laterals all bicuspid, except the last which is a minute nodule; in the others there is no difference of laterals and marginals but that the plates of attachment become shorter towards the margins, and

evanescent in the outer teeth. The radula is 0.55 mill. long, 0.14 wide, and so one tooth measures about 0.0045×0.0035 mill.

This is so radical a difference from the Pupidæ that our species can no longer be placed under that family. It comes nearest *Punctum pygmæum* Drap.,¹ the radula being of the same type, and also the jaw is of the same formation, being quite low and composed of distinct plates.

As to the generic name, *Sphyradium* Charp. 1837(=*Columella* West., *Edentulina* Cless., both 1876, teste Westerlund) must be used.

An interesting analogue is "*Pupa*" *neozelanica* Pfr., with much the same form of shell, which Mr. H. Suter, a few years ago, has shown to be no *Pupa*, but a *Charopa*.

It may be added that the American form is absolutely identical with the palæartic, even showing the same wide range of variation. There is no need, then, to name it *Sph. "edentulum simplex."* Just so, to mention it by the way, *Punctum pygmæum* Drap. is identical on both continents, and so it is equally useless to name it *P. pygmæum minutissimum*.

LIST, WITH NOTES, OF LAND AND FRESH WATER SHELLS COLLECTED
BY DR. WM. H. RUSH IN URUGUAY AND ARGENTINA.

BY HENRY A. PILSBRY AND WILLIAM H. RUSH.

In presenting this list of land and fresh water shells from Uruguay and Argentina, perhaps it will be well to state precisely the localities at which collections were made, especially so from the Uruguay River, which region seems to have been omitted from the report of D'Orbigny. The U. S. S. *Yantic*, to which the writer was attached, arrived at Montevideo, Uruguay, in January, 1892. The public park, *El Prado*, of the city proved to be the richest region near by; the suburbs of the town were rich in *Helix lactea*, as, indeed, were many places in Uruguay and Argentina; several large tracts are preserved for the cultivation of them for the supply of the Italian markets. The *Cerro*, which is quite a prominent hill on a

¹ In the radula of one specimen of *P. pygmæum* r+17 teeth were counted in a transverse row, r+16 in another, and 80 (78) rows were found. The laterals, except the last one or few, were bicuspid. (Conf. E. S. Morse, *Pulmonifera of Maine*, p. 27, pl. 8, fig. 71.),